

SEQUENCE LISTING

<110> Ribaudo and Shields

<120> B2 Microglobulin Fusion Proteins and High Affinity Variants

<130> 67022

<140>

<141>

<150> 09/719,243

<151> 2001-03-19

<150> PCT/US99/12309

<151> 1999-06-03

<150> 60/088,813

<151> 1998-06-10

<160> 20

<170> PatentIn Ver. 2.0

<210> 1

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1

Met	Ser	Arg	Ser	Val	Ala	Leu	Ala	Val	Leu	Ala	Leu	Leu	Ser	Leu	Ser
1				5					10					15	

Gly	Leu	Glu	Ala	Ile	Gln	Arg	Thr	Pro	Lys	Ile	Gln	Val	Tyr	Ser	Arg
		20						25					30		

His	Pro	Ala	Glu	Asn	Gly	Lys	Ser	Asn	Phe	Leu	Asn	Cys	Tyr	Val	Ser
		35					40					45			

Gly	Phe	His	Pro	Ser	Asp	Ile	Glu	Val	Asp	Leu	Leu	Lys	Asn	Gly	Glu
	50					55					60				

Arg	Ile	Glu	Lys	Val	Glu	His	Ser	Asp	Leu	Ser	Phe	Ser	Lys	Asp	Trp
65					70					75					80

Ser	Phe	Tyr	Leu	Leu	Tyr	Tyr	Thr	Glu	Phe	Thr	Pro	Thr	Glu	Lys	Asp
			85						90					95	

Glu	Tyr	Ala	Cys	Arg	Val	Asn	His	Val	Thr	Leu	Ser	Gln	Pro	Lys	Ile
		100						105					110		

Val	Lys	Trp	Asp	Arg	Asp	Met
		115				

<210> 2

<211> 339
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: fusion protein

<400> 2

```

Met Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
 1             5             10             15

Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val
      20             25             30

Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu
      35             40             45

Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr
      50             55             60

Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile
      65             70             75             80

Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr
      85             90             95

Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala
      100            105            110

Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn
      115            120            125

Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro
      130            135            140

Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp
      145            150            155            160

Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser
      165            170            175

Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val
      180            185            190

Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu
      195            200            205

Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Ala Ser Thr
      210            215            220

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ala Ser
      225            230            235            240

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
      245            250            255

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro

```

260	265	270
Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys		
275	280	285
Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu		
290	295	300
Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys		
305	310	315
Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp		
325	330	335
Arg Asp Met		

<210> 3
 <211> 358
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: fusion protein

<400> 3															
Met	Ser	Arg	Ser	Val	Ala	Leu	Ala	Val	Leu	Ala	Leu	Leu	Ser	Leu	Ser
1				5					10					15	
Gly	Leu	Glu	Ala	Val	Ser	Val	Glu	Thr	Gln	Ala	Tyr	Phe	Asn	Gly	Thr
			20					25					30		
Ala	Tyr	Leu	Pro	Cys	Pro	Phe	Thr	Lys	Ala	Gln	Asn	Ile	Ser	Leu	Ser
		35					40					45			
Glu	Leu	Val	Val	Phe	Trp	Gln	Asp	Gln	Gln	Lys	Leu	Val	Leu	Tyr	Glu
	50					55					60				
His	Tyr	Leu	Gly	Thr	Glu	Lys	Leu	Asp	Ser	Val	Asn	Ala	Lys	Tyr	Leu
65					70					75					80
Gly	Arg	Thr	Ser	Phe	Asp	Arg	Asn	Asn	Trp	Thr	Leu	Arg	Leu	His	Asn
				85					90					95	
Val	Gln	Ile	Lys	Asp	Met	Gly	Ser	Tyr	Asp	Cys	Phe	Ile	Gln	Lys	Lys
			100					105					110		
Pro	Pro	Thr	Gly	Ser	Ile	Ile	Leu	Gln	Gln	Thr	Leu	Thr	Glu	Leu	Ser
		115					120				125				
Val	Ile	Ala	Asn	Phe	Ser	Glu	Pro	Glu	Ile	Lys	Leu	Ala	Gln	Asn	Val
	130					135					140				
Thr	Gly	Asn	Ser	Gly	Ile	Asn	Leu	Thr	Cys	Thr	Ser	Lys	Gln	Gly	His
145					150					155				160	

Pro	Lys	Pro	Lys	Lys	Met	Tyr	Phe	Leu	Ile	Thr	Asn	Ser	Thr	Asn	Glu	
				165					170					175		
Tyr	Gly	Asp	Asn	Met	Gln	Ile	Ser	Gln	Asp	Asn	Val	Thr	Glu	Leu	Phe	
				180					185					190		
Ser	Ile	Ser	Asn	Ser	Leu	Ser	Leu	Ser	Phe	Pro	Asp	Gly	Val	Trp	His	
				195					200					205		
Met	Thr	Val	Val	Cys	Val	Leu	Glu	Thr	Glu	Ser	Met	Lys	Ile	Ser	Ser	
				210					215					220		
Lys	Pro	Leu	Asn	Phe	Thr	Gln	Glu	Phe	Pro	Ser	Pro	Gln	Thr	Tyr	Trp	
225					230					235					240	
Ala	Ser	Thr	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	
				245					250					255		
Gly	Ala	Ser	Ile	Gln	Arg	Thr	Pro	Lys	Ile	Gln	Val	Tyr	Ser	Arg	His	
				260					265					270		
Pro	Ala	Glu	Asn	Gly	Lys	Ser	Asn	Phe	Leu	Asn	Cys	Tyr	Val	Ser	Gly	
				275					280					285		
Phe	His	Pro	Ser	Asp	Ile	Glu	Val	Asp	Leu	Leu	Lys	Asn	Gly	Glu	Arg	
				290					295					300		
Ile	Glu	Lys	Val	Glu	His	Ser	Asp	Leu	Ser	Phe	Ser	Lys	Asp	Trp	Ser	
305					310					315					320	
Phe	Tyr	Leu	Leu	Tyr	Tyr	Thr	Glu	Phe	Thr	Pro	Thr	Glu	Lys	Asp	Glu	
				325					330					335		
Tyr	Ala	Cys	Arg	Val	Asn	His	Val	Thr	Leu	Ser	Gln	Pro	Lys	Ile	Val	
				340					345					350		
Lys	Trp	Asp	Arg	Asp	Met											
				355												

<223> Description of Artificial Sequence: primer

<400> 5
attttcagca aggactgggc ttcc 24

<210> 6
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 6
gtgttcagca aggactgggc ttcc 24

<210> 7
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 7
taagtctgaa tgctccactt ttcc 24

<210> 8
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 8
agggtaccat ggtttccgtg gagacgcaag c 31

<210> 9
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 9
tcgaattcat gatgctagcc caatacgttt gaggagatgg 40

<210> 10
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Modified hB2m
S55V

<400> 10
 Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
 1 5 10 15
 Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
 20 25 30
 Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
 35 40 45
 Val Glu His Ser Asp Leu Val Phe Ser Lys Asp Trp Ser Phe Tyr Leu
 50 55 60
 Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
 65 70 75 80
 Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
 85 90 95
 Arg Asp Met

<210> 11
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: linker that
 can be used in fusion proteins

<400> 11
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 12
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: linker that
 can be used in fusion proteins

<400> 12
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ala Ser
 1 5 10 15

<210> 13
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 13

Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala
1 5 10 15

Gln Pro Ala Met Ala
20

<210> 14

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 14

Met Arg Ala Lys Leu Leu Gly Ile Val Leu Thr Pro Ile Ala Ile Ser
1 5 10 15

Phe Ala Ser Thr
20

<210> 15

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: c-myc tag

<400> 15

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn
1 5 10

<210> 16

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ornithine
decarboxylase 309-317

<400> 16

Ser Ser Glu Gln Thr Phe Met Tyr Tyr
1 5

<210> 17

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HTLV TAX 11-19

<400> 17

Leu Leu Phe Gly Tyr Pro Val Tyr Val

1 5

<210> 18

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HIV gag 77-85

<400> 18

Ser Leu Tyr Asn Thr Val Ala Thr Leu

1 5

<210> 19

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pn2a.A3

<400> 19

Lys Leu Tyr Glu Lys Val Tyr Thr Tyr Lys

1 5 10

<210> 20

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: influenza NP
265-273

<400> 20

Ile Leu Arg Gly Ser Val Ala His Lys

1 5